federal register

FRIDAY, SEPTEMBER 5, 1975

PART II:

ENVIRONMENTAL PROTECTION AGENCY

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NAVIGABLE WATERS

Discharge of Dredged or Fill Material

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

[FRL 421-1]

PART 230—NAVIGABLE WATERS

Discharge of Dredged or Fill Material

The Administrator of the Environmental Protection Agency (EPA) on May 6, 1975, proposed guidelines, pursuant to section 404(b) of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (hereinafter, "the Act"), for the purpose of providing guidance to be applied in evaluating proposed discharge of dredged or fill material in navigable waters. The guidelines were developed in conjunction with the Army pursuant to section 404(b) of the Act.

Written comments were to be submitted to the Environmental Protection Agency by June 6, 1975. This date was extended to June 30 and consideration has been given to all comments received.

The guidelines are applicable to all activities involving the discharge of dredged or fill material in navigable waters, defined in the Act to mean "the waters of the United States, including the territorial seas." Such discharges are unlawful except in compliance with permits issued by the Secretary of the Army, acting through the Chief of Engineers, after notice and opportunity for public hearings (see 33 CFR 209.120, "Permits for Activities in Navigable Waters or Ocean Waters," published by the Corps of Engineers in the FEDERAL REGISTER on July 25, 1975). These guidelines are applicable to all Federal projects or activities, just as they are applicable to any other project or activity involving a discharge of dredged or fill materials.

Interim final guidelines are being published in order to provide immediate guidance in the implementation of the permit program under section 404 of the Act. While these guidelines become effective upon publication, there will be an additional comment period of 90 days in order that the public may comment further on any of its provisions. Thereafter, these comments will be reviewed and the guidelines modified if necessary.

The development of a permit program to regulate the discharge of dredged material and fill material in all waters of the United States has been the subject of intensive discussions between the Environmental Protection Agency and the Corps of Engineers, as well as other Federal and State agencies and the public. We have worked together in an effort to develop a program that is manageable, responsive to the concerns of protecting vital national water resources from destruction through irresponsible and irreversible decisions, and sensitive to the often conflicting needs and desires of people who utilize these resources. We have attempted to create a program that recognizes the need to interweave all concerns of the public in the decision-making process; that recognizes that present limitations on manpower preclude its immediate implementation throughout the country; and that we believe to be responsive to the overall objectives and needs of the Federal Water Pollution Control Act.

Section 230.1 summarizes the purpose and scope of the guidelines. Section 230.2 and Appendix A contain definitions to be used in the application of the guidelines in the program under section 404 of the Act.

The procedures for evaluating the discharge of dredged or fill material are outlined in § 230.3. This section is intended to emphasize that each provision of §§ 230.4 and 230.5 must be applied in reaching one of the following determinations: (1) Allowing the proposed discharge with appropriate discharge conditions to minimize unacceptable effects on the aquatic environment; (2) denying the proposed discharge when the discharge will have an unacceptable effect on the aquatic environment; or (3) requesting additional information where necessary to ensure a sound decision.

Section 230.4 presents general approaches for technical evaluation of discharges of dredged or fill material. Section 230.4-1 describes the types of ecological effects that may result from the discharge of dredged or fill material and technical approaches which are available to evaluate such effects where appropriate. Section 230.4-2 explains the considerations that will be given to water quality standards.

Section 230.5 presents objectives and considerations for evaluating proposed sites and for conditioning discharges so as to minimize harmful effects when the disposal site can be approved. All proposed discharges will be analyzed by application of each provision presented.

Section 230.6 provides guidance on the use of general permits for categories of discharge activities that will have only minimal effect on the aquatic environment. Section 230.7 encourages advanced study of aquatic areas to identify those areas of critical ecological concern and those areas that are less sensitive. It is expected that, where practicable, advanced identification of such areas will facilitate planning and improve evaluation of individual and general permits. State and local implementation of advanced planning through mechanisms such as Coastal Zone Management Programs will significantly contribute to the success of these studies.

The following analysis summarizes key comments received on various sections of the proposed guidelines and presents a rationale for the changes made:

(1) Several commenters suggested that the guidelines lack a strong committment to the spirit of the law by failing to place strict controls on the discretionary power given to the District Engineers. The nationwide application of a single set of guidelines to a variety of discharge activities in a myriad of different aquatic systems requires that the permitting agency retain the discretion to adapt the approaches and considerations in the guidelines to local conditions. However, many of the approaches and considerations have been rewritten to clarify that discharges will not be allowed if it is determined that the proposed discharge will result in unacceptable harm to the aquatic system.

(2) Several comments indicated confusion over the organization of the guidelines. The guidelines have been reorganized, renumbered and retitled to provide greater clarity and utility.

(3) Many commenters objected to the execution of raw material extraction from the section 404 permit system. The Corps of Engineers regulations and the guidelines now recognize that the discharge of material extracted and processed on shipboard is included in the section 404 program, while discharges from land-based processing are included in the National Pollutant Discharge Elimination System under section 402 of the Act.

(4) Most of the comments concerned technical analytical procedures, the adequacy of using the results as a description of constituents actually contained in sediments, whether constituents measured are actually available to aquatic organisms and humans, and the criteria for evaluating technical analyses. In addition to the comments volunteered by the interested public, we sought opinions of experts in each of the above areas of concern. All comments indicated that at this time none of the tests specified in the proposed guidelines can be used on a nationwide basis to examine all sediments thought to contain toxic substances. However, each of the technical evaluations specified in the proposed guidelines can be used meaningfully under some disposal conditions. Since there is no single technical evaluation available for nationwide use, additional physical analysis, bioassays, and biological evaluations have been added. Technical evaluations should be required only when a case-by-case review indicates that the results will provide information necessary to reach a final decision. When used carefully, the results of an appropriate technical evaluation in a given case will serve as one of many factors involved in the decision-making process. The Environmental Protection Agency, in conjunction with the Corps of Engineers will publish a procedures manual to provide details on technical evaluations. Interim technical guidance is available from the District Engineers.

(5) A number of commenters criticized the apparent lack of State participation in the permit program. It has never been the intention of this Agency or the Corps of Engineers to exclude the States from this program.

First, since each discharge of dredged or fill material into a navigable water is, in effect, the discharge of a pollutant into the water, a State water quality certification is required under section 401 of the Act before that discharge can be lawfully undertaken. Provision has therefore been made in the Corps of Engineers regulations (see 40 CFR 209.120(f)(3)) to indicate this legal requirement. Thus, any State may cause the denial of a section 404 permit if it chooses to deny a water quality certification. Similar situations also exist in those States with approved

Coastal Zone Management Programs: An individual in States with such programs must also certify that his activity will comply with the approved plan. On the other hand, where the State does not have such a certification program or delays the processing of its certification, the Corps of Engineers will still begin to process the section 404 permit. In absence of a timely response from the State, the section 404 permit will be processed to a conclusion.

Second, we are aware that some States have existing permit programs to regulate the same types of activities that will be regulated through section 404 of the Act by the Corps of Engineers. To the extent possible, it is our desire to support the State in its decision. Thus, where a State denies a permit, the Corps will not issue a section 404 permit. On the other hand, if a State issues a permit, the Corps would not deny its permit unless there are overriding environmental factors as reflected in these guidelines. We believe that conflicting decisions will be minimized if State permit programs include the policies, procedures, goals, requirements, and objectives embodied in the Corps permit program (see 40 CFR 209.120(f)(3)) and the national legislation which molded and supports it. This would include, for example, the concerns and requirements of the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, the Coastal Zone Management Act, and the FWPCA.

Finally provision has been made in the Corps regulations (see 40 CFR 209.120 (f)(3)) to allow the District Engineer to enter into an agreement with those States having ongoing permit programs which would enable joint processing of the Department of the Army and the State permit application to an independent conclusion by each entity. This would include joint public notices, joint public hearings, and the joint development, review, and analysis of information which leads to the final decision on a permit application. We strongly encourage States to work with District Engineers in this effort as this is a valuable mechanism for avoiding unnecessary duplication of effort.

Accordingly, having considered the comments received and other relevant information, the Administrator hereby adopts these guidelines as interim final, effective upon publication as guidance for evaluating all proposed discharges of dredged or fill material into the navigable waters, and also allowing 90 additional days for public comment after which time the guidelines may be modified if necessary.

All comments should be submitted to Eckardt C. Beck, Deputy Assistant Administrator for Water Planning and Standards, Office of Water and Hazardous Materials (WH-451), EPA, 401 M Street, S.W., Washington, D.C. 20460. All comments received on or before December 4, 1975 will be considered.

Dated: August 28, 1975.

RUSSELL E. TRAIN,
Administrator.

Interim final Part 230 is added to read as follows:

Sec.
230.1 Purpose and scope.
230.2 Definitions.
230.3 Evaluation procedures.
230.4 General approaches for technical evaluation.
230.4–1 Physical and chemical-biological interactive effects and approaches for evaluation.
230.4–2 Water quality considerations.
230.5 Selection of disposal sites and conditioning of discharges of dredged or fill material.
230.6 General or categorical permits.
230.7 Advanced identification of dredged material disposal areas.
230.8 Revision.

APPENDIX A.

AUTHORITY: Sec. 404(b) Federal Water Pollution Control Act of 1972; Pub. L. 92–500.

§ 230.1 Purpose and scope.

(a) *Purpose.* The guidelines contained herein have been developed by the Administrator, Environmental Protection Agency in conjunction with the Secretary of the Army pursuant to section 404(b) of the Federal Water Pollution Control Act (33 USC 1344).

(1) These guidelines are required by section 404 of the Act to be applied in the issuance of permits for the discharge of dredged or fill material at specified disposal sites. In the event the District Engineer's application of the guidelines would preclude the discharge of dredged or fill material, the District Engineer in making the decision will also evaluate the economic impact on navigation and anchorage which will occur by failing to utilize the proposed disposal site.

(2) In addition, under section 404(c) of the Act, no discharge of dredged or fill material will occur at a proposed disposal site in a navigable water if the Administrator of EPA determines, after notice and opportunity for a public hearing and consultation with the Secretary of the Army, that such discharge will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife or recreational areas.

(b) *Applicability.* These guidelines are applicable to all activities involving the discharge of dredged or fill material in navigable waters. They will be applied by the Corps of Engineers in the review of proposed discharges of dredged or fill material into navigable waters which lie inside the baseline from which the territorial sea is measured or the discharge of fill material into the territorial sea pursuant to the procedures specified in 33 CFR 209.120 and 33 CFR 209.145.

(1) The discharge of dredge material into the territorial sea is governed by the Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. 92–532, and regulations and criteria issued pursuant thereto. (See 33 CFR 209.120, "Permits for Activities in Navigable Waters or Ocean Waters" and 33 CFR 209.145, "Federal Projects Involving the Disposal of Dredged Material in Navigable and Ocean Waters", and 40 CFR 227, "Ocean Dumping Final Regulations and Criteria".)

(2) These guidelines apply in a like manner to all discharges of dredged or fill material into navigable waters proposed to be undertaken by members of the general public and Federal Agencies including those Corps of Engineers operations that will result in such discharges.

§ 230.2 Definitions.

For purposes of this subpart 230, the following terms shall have the meanings indicated:

(a) The term "Act" means the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92–500, 33 USC 1251 et seq.).

(b) The definitions set forth in 33 CFR 209.120(d) are incorporated herein by reference. These cover: navigable waters, dredged material, discharge of dredged material, fill material, and discharge of fill material. A copy of these definitions is appended hereto.

(c) The term "Regional Administrator" means the EPA Regional Administrator for the particular EPA Region in which dredged or fill material is proposed to be discharged.

(d) The term "District Engineer" means the District Engineer for the U.S. Army Corps of Engineers District in which dredged or fill material is proposed to be discharged or such other individual as may be designated by the Secretary of the Army to issue or deny permits under section 404 of the Act.

(e) The term "territorial sea" means the belt of the sea measured from the baseline as determined in accordance with the Convention on the Territorial Sea and the Contiguous Zone and extending seaward a distance of three miles.

(f) The term "disposal site" means the location within fixed geographic boundaries in which a discharge of dredged or fill material is proposed or has been undertaken, and includes the volume of water and the substrate over which such water volume lies, where applicable.

(g) The term "constituents" means the chemical substances, the solids, and the organisms associated with dredged or fill material.

§ 230.3 Evaluation procedures.

(a) All proposed discharges of dredged or fill material will be processed and evaluated in accordance with these guidelines and with applicable Corps of Engineers regulations (33 CFR 209.120 and 33 CFR 209.145).

(b) Upon issuance of the public notice required by 33 CFR 209.120(j) and 209.145(g) the District Engineer shall send a copy of the public notice to the Regional Administrator.

(c) The role of the Regional Administrator shall include consultation with the District Engineer on the interpretation of the guidelines, review and comment to the District Engineer on permit applications, and implementation of section 404(c) in appropriate cases.

(d) The District Engineer shall utilize these guidelines by making an eco-

logical evaluation following the guidance in § 230.4, including technical evaluation where appropriate, in conjunction with the evaluation considerations specified in § 230.5. This evaluation shall be utilized by the District Engineer in making one of the following determinations pursuant to section 404(b)(1) of the Act:

(1) Allowing the proposed discharge with appropriate discharge conditions to minimize unacceptable effects on the aquatic environment;

(2) Denying the proposed discharge when the discharge will have an unacceptable effect on the aquatic environment;

(3) Requesting additional information where necessary to ensure a sound decision.

(e) The District Engineer shall make use of the following approaches where practicable: Short form application procedures as may be subsequently developed by the Chief of Engineers for minor activities with minimal environmental effects; use of general permit procedures (see § 230.6); and advance identification of disposal areas (see § 230.7). Evaluation of the proposed discharge will also be made based on information contained in Environmental Impact Assessments, Environmental Impact Statements if required, Coastal Zone Management Programs, and River Basin Plans.

§ 230.4 General approaches for technical evaluation.

The effects of discharges of dredged or fill material on aquatic organisms and human uses of navigable waters may range from insignificant disruption to irreversible change at the disposal site. Section 230.4–1 describes the types of ecological effects that may result from the discharge of dredged or fill material and technical approaches to evaluate such effects. Ecological impact from dredged or fill material discharges can be divided into two main categories: (a) physical effects; and (b) chemical-biological interactive effects.

§ 230.4–1 Physical and chemical-biological interactive effects and approaches for evaluation.

No single test or approach can be applied in all cases to evaluate the effects of proposed discharges of dredged or fill material. Evaluation of the significance of physical effects often may be made without laboratory tests by examining the character of the dredged or fill material proposed for discharge and the discharge area with particular emphasis on the principles given in § 230.5. The chemical changes in water quality may best be simulated by use of an elutriate test. To the extent permitted by the state of the art, expected effects such as toxicity, stimulation, inhibition or bioaccumulation may best be estimated by appropriate bioassays. Suitability of the proposed disposal sites may be evaluated by the use, where appropriate, of sediment analysis or bioevaluation. In order to avoid unreasonable burdens on applicants in regard to the amounts and types of data to be provided, consideration will be given by the District Engineer to the economic cost of performing the evaluation, the utility of the data to be provided, and the nature and magnitude of any potential environmental effect. EPA in conjunction with the Corps of Engineers will publish a procedures manual that will cover summary and description of tests, definitions, sample collection and preservation, procedures, calculations, and references. Interim guidance to applicants concerning the applicability of specific approaches or procedures will be furnished by the District Engineer.

(a) *Physical Effects.* Physical effects on the aquatic environment include the potential destruction of wetlands, impairment of the water column, and the covering of benthic communities. Other physical effects include changes in bottom geometry and substrate composition that cause subsequent alterations in water circulation, salinity gradients and the exchange of constituents between sediments and overlying water with subsequent alterations of biological communities. (See § 230.5 of these guidelines.)

(1) From a national perspective, the degradation or destruction of aquatic resources by filling operations in wetlands is considered the most severe environmental impact covered by these guidelines. Evaluation procedures for determining the environmental effects of fill operations in wetlands are relatively straight forward. The guiding principle should be that destruction of highly productive wetlands may represent an irreversible loss of a valuable aquatic resource. (See 33 CFR 209.120(g)(3) and 230.5 of these guidelines.) Wetlands considered to perform important functions include but are not limited to the following:

(i) Wetlands that serve important natural biological functions, including food chain production, general habitat, and nesting, spawning, rearing and resting sites for aquatic or land species;

(ii) Wetlands set aside for study of the aquatic environment or as sanctuaries of refuges;

(iii) Wetlands contiguous to areas listed in paragraphs (a)(1)(i) and (ii) of this section, the destruction or alteration of which would affect detrimentally the natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics of the above areas;

(iv) Wetlands that are significant in shielding other areas from wave action, erosion or storm damage. Such wetlands often include barrier beaches, islands, reefs and bars;

(v) Wetlands that serve as valuable storage areas for storm and flood waters; and

(vi) Wetlands that are prime natural recharge areas. Prime recharge areas are locations where surface and ground water are directly interconnected.

(2) Effects on the water column are principally those associated with a reduction in light transmission, aesthetic values, and direct destructive effects on nektonic and planktonic populations. The significance of water column physical effects are not readily predicted by current technical approaches.

(3) The effect on benthos is essentially the covering of benthic communities with a subsequent change in community structure or function. It has been noted that the benthic community often will reestablish, although sometimes of a somewhat different ecological structure. Evaluation of the significance of the effect on the benthic community can be estimated prior to the discharge activity from a knowledge of the hydrodynamics of the disposal site, mode of discharge, volume of materials, particle size distribution and types of dredged or fill material, and from a knowledge of the benthic community.

(b) Chemical-biological interactive effects. Ecological perturbation caused by chemical-biological interactive effects resulting from discharges of dredged or fill material is very difficult to predict. Research performed to date has not clearly demonstrated the extent of chemical-biological interactive effects resulting from contaminants present in the dredged or fill material. The principal concerns of open water discharge of dredged or fill material that contain chemical contaminants are the potential effects on the water column or on benthic communities.

(1) *Evaluation of chemical-biological interactive effects.* Dredged or fill material may be excluded from the evaluation procedures specified in paragraphs (b)(2) and (3) of this section if any of the conditions specified in paragraphs (b)(1)(i), (ii) or (iii) of this section are determined to exist, unless the District Engineer, after evaluating and considering any comments received from the Regional Administrator, determines that these approaches and procedures are necessary. The Regional Administrator may require, on a case-by-case basis, testing approaches and procedures by stating what additional information is needed through further analyses and how the results of the analysis will be of value in evaluating potential environmental effects. Dredged or fill material may be excluded from this evaluation, if:

(i) Dredged or fill material is composed predominantly of sand, gravel, or any other naturally occurring sedimentary material with particle sizes larger than silt, characteristic of and generally found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels;

(ii) Dredged or fill material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on receiving shores; or

(iii) When:

(*a*) The material proposed for discharge is substantially the same as the substrate at the proposed disposal site; and

(*b*) The site from which the material proposed for discharge is to be taken is

sufficiently removed from sources of pollution to provide reasonable assurance that such material has not been contaminated by such pollution; and

(c) Adequate terms and conditions are imposed on the discharge of dredged or fill material to provide reasonable assurance that the material proposed for discharge will not be moved by currents or otherwise in a manner that is damaging to the environment outside the disposal site.

(2) *Water column effects.* Sediments normally contain constituents that exist in different chemical forms and are found in various concentrations in several locations within the sediment. The potentially bioavailable fraction of a sediment is dissolved in the sediment interstitial water or in a loosely bound form that is present in the sediment. In order to predict the effect on water quality due to release of contaminants from the sediment to the water column, an elutriate test may be used. The elutriate is the supernatant resulting from the vigorous 30-minute shaking of one part bottom sediment from the dredging site with four parts water (vol./vol.) collected from the dredging site followed by one-hour settling time and appropriate centrifugation and a 0.45u filtration. Major constituents to be analyzed in the elutriate are those deemed critical by the District Engineer, after evaluating and considering any comments received from the Regional Administrator, and considering known sources of discharges in the area and known characteristics of the extraction and disposal sites. Elutriate concentrations should be used in conjunction with the same constituents in disposal site water and other data which describe the volume and rate of the intended discharge, the type of discharge, the hydrodynamic regime at the disposal site, and other available information that aids in the evaluation of impact on water quality (see § 230.5 of these guidelines). The District Engineer may specify bioassays when he determines that such procedures will be of value. In reaching this determination, dilution and dispersion effects subsequent to the discharge at the disposal site will be considered.

(3) *Effects on benthos.* Evaluation of the significance of chemical-biological interactive effects on benthic organisms resulting from the discharge of dredged or fill material is extremely complex and demands procedures which are at the forefront of the current state of the art. Although research has shown that benthic species can ingest contaminated sediment particles, it has not been determined to what degree the contaminants are dissociated from the sediment and incorporated into benthic body tissues thereby gaining entry to the food web. The District Engineer may use an appropriate benthic bioassay when such procedures will be of value in assessing ecological effect and in establishing discharge conditions.

(c) *Procedure for comparison of sites.* (1) When an inventory of the total concentration of chemical constituents deemed critical by the District Engineer would be of value in comparing sediment at the dredging site with sediment at the disposal site, he may require a total sediment chemical analysis. Total sediment analysis is accomplished by concentrated strong acid digestion or solvent extraction for inorganic and organic constituents respectively. Markedly different concentrations of critical constituents between the excavation and disposal sites may aid in making an environmental assessment of the proposed disposal operation.

(2) When an analysis of biological community structure will be of value to assess the potential for adverse environmental impact at the proposed disposal site, a comparison of the biological characteristics between the excavation and disposal sites may be required by the District Engineer. Biological indicator species may be useful in evaluating the existing degree of stress at both sites. Sensitive species representing community components colonizing various substrate types within the sites should be identified as possible bioassay organisms if tests for toxicity are required. Community structure studies are expensive and time consuming, and therefore should be performed only when they will be of value in determining discharge conditions. This is particularly applicable to large quantities of dredged material known to contain adverse quantities of toxic materials. Community studies should include benthic organisms such as microbiota and harvestable shellfish and finfish. Abundance, diversity, and distribution should be documented and correlated with substrate type and other appropriate physical and chemical environmental characteristics.

§ 230.4–2 Water quality considerations.

After application of the approaches presented in § 230.4, the District Engineer will compare the concentrations of appropriate constituents to applicable narrative and numerical guidance contained in such water quality standards as are applicable by law. In the event that such discharge would cause a violation of such appropriate and legally applicable standards at the perimeter of the disposal site after consideration of the mixing zone (see § 230.5(e)) discharge shall be prohibited.

§ 230.5 Selection of disposal sites and conditioning of discharges of dredged or fill material.

(a) *General considerations and objectives.* In evaluating whether to permit a proposed discharge of dredged or fill material into navigable waters, consideration shall be given to the need for the proposed activity (see 33 CFR 209.120 and 33 CFR 209.145), the availability of alternate sites and methods of disposal that are less damaging to the environment, and such water quality standards as are appropriate and applicable by law. The following objectives shall be considered in making a determination on any proposed discharge:

(1) Avoid discharge activities that significantly disrupt the chemical, physical and biological integrity of the aquatic ecosystem, of which aquatic biota, the substrate, and the normal fluctuations of water level are integral components;

(2) Avoid discharge activities that significantly disrupt the food chain including alterations or decrease in diversity of plant and animal species;

(3) Avoid discharge activities that inhibit the movement of fauna especially their movement into and out of feeding, spawning, breeding and nursery areas;

(4) Avoid discharge activities that will destroy wetland areas having significant functions in maintenance of water quality;

(5) Recognize that discharge activities might destroy or isolate areas that serve the function of retaining natural high waters or flood waters;

(6) Minimize, where practicable, adverse turbidity levels resulting from the discharge of material;

(7) Minimize discharge activities that will degrade aesthetic, recreational, and economic values;

(8) Avoid degradation of water quality as determined through application of § 230.4, 230.5 (c) and (d).

(b) *Considerations relating to degradation of water uses at proposed disposal sites*—(1) *Municipal water supply intakes.* No disposal site may be designated in the proximity of a public water supply intake. The District Engineer and the Regional Administrator will determine the acceptable location of the disposal site in such cases.

(2) *Shellfish.* (i) Disposal sites for dredged or fill material shall not be designated in areas of concentrated shellfish production. In the case of widely dispersed shellfish populations where it is demonstrated by the applicant that the avoidance of shellfish population areas is impossible the disposal site may be located within such areas, but should be situated so as to cause the least impact on the shellfish population with particular reference to the burial of living forms and maintenance of a suitable substrate.

(ii) Disposal sites should be located to minimize or prevent the possible movement of pollutants by currents or wave action into productive shellfish beds.

(iii) Banks formed by dredged or fill material should be located and oriented to prevent undesirable changes in current patterns, salinity patterns and flushing rates which may affect shellfish.

(iv) The disposal operation should be scheduled to avoid interference with reproductive processes and avoid undue stress to juvenile forms of shellfish.

(3) *Fisheries.* (i) Significant disruptions of fish spawning and nursery areas should be avoided.

(ii) Dredging and disposal operations should be scheduled to avoid interference with fish spawning cycles and to minimize interference with migration patterns and routes.

(iii) Consideration shall be given to preservation of submersed and emergent vegetation.

(4) *Wildlife.* Disposal sites will be designated so as to minimize the impact

on habitat, the food chain, community structures of wildlife, and marine or aquatic sanctuaries.

(5) *Recreation activities.* In evaluating proposed discharges of dredged or fill material in or near recreational areas, the following factors should be considered:

(i) Reasonable methods should be employed to minimize any increase in amount and duration of turbidity which would reduce the numbers and diversity of fish or cause a significant aesthetically displeasing change in the color, taste, or odor of the water.

(ii) Release of nutrients from dredged or fill material should be minimized in or to prevent eutrophication, the degradation of aesthetic values, and impairment of recreation uses.

(iii) No material that will result in unacceptable levels of pathogenic organisms shall be discharged in areas used for recreation involving physical contact with the water.

(iv) No material shall be discharged which will release oil and grease in harmful quantities as defined in 40 CFR 110.

(6) *Threatened and endangered species.* No discharge will be allowed that will jeopardize the continued existence of threatened or endangered species or destroy or modify the habitat of those species determined critical in accordance with the Endangered Species Act.

(7) *Benthic life.* Disposal sites should be areas where benthic life which might be damaged by the discharge is minimal recognizing that enhancement may also occur. Use of existing disposal sites is generally desirable.

(8) *Wetlands.* (i) Discharge of dredged material in wetlands may be permitted only when it can be demonstrated that the site selected is the least environmentally damaging alternative; provided, however, that the wetlands disposal site may be permitted if the applicant is able to demonstrate that other alternatives are not practicable and that the wetlands disposal will not have an unacceptable adverse impact on the aquatic resources. Where the discharge is part of an approved Federal program which will protect or enhance the value of the wetlands to the ecosystem, the site may be permitted.

(ii) Discharge of fill material in wetlands shall not be permitted unless the applicant clearly demonstrates the following:

(a) the activity associated with the fill must have direct access or proximity to, or be located in, the water resources in order to fulfill its basic purpose, or that other site or construction alternatives are not practicable; and

(b) that the proposed fill and the activity associated with it will not cause a permanent unacceptable disruption to the beneficial water quality uses of the affected aquatic ecosystem, or that the discharge is part of an approved Federal program which will protect or enhance the value of the wetlands to the ecosystem.

(9) *Submersed Vegetation.* Disposal sites shall be located to minimize the impact on submersed grassflats (for example *Thalassia* and *Zostera* beds) and other areas containing submersed vegetation of significant biological productivity.

(10) *Size of disposal site.* The specified disposal site shall be confined to the smallest practicable area consistent with the type of dispersion determined to be appropriate by the application of these guidelines. Although the impact of the particular discharge may constitute a minor change, the cumulative effect of numerous such piecemeal changes often results in a major impairment of the water resource and interferes with the productivity and water quality processes of existing environmental systems. Thus, the particular disposal site will be evaluated with the recognition that it is part of a complete and interrelated ecosystem. The District Engineer may undertake reviews of particular areas in response to new applications, and in consultation with the appropriate Regional Director of the Fish and Wildlife Service, the Regional Director of the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, the Regional Administrator of the Environmental Protection Agency, the State Conservationist of the Soil Conservation Service of the Department of Agriculture, and the head of the appropriate State agencies, including the State Director of an approved Coastal Zone Management Program, to assess the cumulative effect of activities in such areas.

(c) The following may also be considered in determining the site and disposal conditions to minimize the possibility of harmful effects:

(1) Appropriate scientific literature, such as the National Water Quality Criteria developed by the Administrator, pursuant to section 304(a)(1) of the Act;

(2) Alternatives to open water disposal such as upland or confined disposal;

(3) Disposal sites where physical environmental characteristics are most amenable to the type of dispersion desired;

(4) Disposal seaward of the baseline of the territorial sea;

(5) Covering contaminated dredged material with cleaner material;

(6) Conditions to minimize the effect of runoff from confined areas on the aquatic environment; and

(7) The Regional Administrator may specify appropriate monitoring conditions in proximity of disposal sites where necessary to control and minimize water quality degradation, pursuant to Section 308 of the Act.

(d) *Contaminated fill material restrictions.* The discharge of fill material originating from a land source shall not be allowed when the District Engineer determines that the material contains unacceptable quantities, concentrations or forms of the constituents deemed critical by the District Engineer or the Regional Administrator for the proposed disposal site, unless such material is effectively confined to prevent the discharge, leaching, or erosion of the material outside the confined area. Appropriate approaches in 230.4 may be used in making this determination.

(e) *Mixing zone determination.* The mixing zone shall be the smallest practicable mixing zone within each specified disposal site, consistent with the objectives of these guidelines, in which desired concentrations of constituents must be achieved.

The District Engineer and the Regional Administrator shall consider the following factors in determining the acceptability of a proposed mixing zone:

(1) Surface area, shape and volume of the discharge site;

(2) Current velocity, direction and consistency at the discharge site;

(3) Degree of turbulence;

(4) Stratification attributable to causes which include without limitation salinity, obstructions, and specific gravity;

(5) Any on-site studies or mathematical models which have been developed with respect to mixing patterns at the discharge site; and

(6) Such other factors prevailing at the discharge site that affect rates and patterns of mixing.

§ 230.6 General or categorical permits.

(a) The District Engineer upon compliance with the procedures of 33 CFR 209.120 may issue a general permit for a clearly described category of discharge activities if he determines that the category meets the following conditions:

(1) The activities included in the category are substantially similar in nature; and

(2) The activities included in the category have substantially similar impact on water quality and the aquatic system, and the adverse impact on water quality and the aquatic system is minimal for each discharge activity; and

(3) The cumulative impact of the total number of activities predicted to occur during the period authorized by the permit, is expected to have only minimal adverse effect on water quality and the aquatic system.

(b) The District Engineer, may condition general permits to require dischargers to submit the following information at least 45 days prior to commencement of the discharge of dredged or fill material:

(1) The name and address of the discharger.

(2) The location of the contemplated activity including the name and general description of the receiving waters, including wetlands, and the size of the area to be filled.

(3) A brief description of the proposed activity, its purpose and intended use, including a description of the type of structures, if any, to be erected on fills.

(4) A description of the type, composition, and quantity of materials to be discharged and means of conveyance.

(5) A copy of other Federal, State, and local government authorizations obtained including a State water-quality

certification under Section 401 of the Federal Water Pollution Control Act and, where applicable, a certification of compliance with an approved State Coastal Zone Management Program pursuant to Section 307(c)(3) of the Coastal Zone Management Act.

(c) If reporting is required the District Engineer shall record the individual disposal site as authorized and authorization will occur automatically 30 days after receipt of notification unless the applicant is otherwise notified by the District Engineer.

(d) A general permit may be revoked completely or partially by the District Engineer independently or on the advice of the Regional Administrator, if he determines that the discharges of dredged or fill material authorized by it or the cumulative effects thereof will have an adverse impact on water quality and the aquatic sytem. Following revocation, any discharges of dredged or fill material in areas formerly covered by the general permit shall be processed as individual permits under this regulation.

§ 230.7 Advanced identification of dredged material disposal areas.

(a) The District Engineer and the Regional Administrator, after consultation with the affected State or States, may at their discretion and consistent with the guidelines, identify areas which will be considered as:

(1) Possible future disposal sites; or

(2) Areas which will not be available for disposal site specification.

(b) The identification of any area as a possible future disposal site shall not be deemed to constitute a permit for the discharge of dredged or fill material within such areas, but may be used in evaluating individual or general permit applications.

(c) A record of areas so identified shall be maintained at the offices of the District Engineer and the Regional Administrator.

(d) To provide the basis for advanced identification of disposal areas and of areas not available for disposal, the Regional Administrator and the District Engineer should assess waterbodies to determine those areas which are of critical ecological concern, those which are of environmental concern, and nonsensitive areas. To facilitate this analysis, they should assemble water resource management data including such data as may be available from the other Federal and State agencies listed in § 230.5(b)(10) and information from approved Coastal Zone Management Programs and River Basin Plans.

§ 230.8 Revision.

The provisions of these guidelines will be periodically reviewed by the Administrator in conjunction with the Secretary of the Army pursuant to section 404(b)(1) of the Act. The guidelines may not be modified without approval of the Secretary of the Army and the Administrator. Any proposed revisions, or notice that a review has been completed and no revisions are proposed, will be published in the FEDERAL REGISTER within three years of the date of this initial promulgation or earlier as determined by research results and affirmed by the Administrator in conjunction with the Secretary of the Army.

APPENDIX A

DEFINITIONS FROM 33 CFR 209.120, "PERMITS FOR WORK IN NAVIGABLE WATERS OR OCEAN WATERS"

(1) "Navigable waters of the United States." The term, "navigable waters of the United States," is administratively defined to mean waters that have been used in the past, are now used, or are susceptible to use as a means to transport interstate commerce landward to their ordinary high water mark and up to the head of navigation as determined by the Chief of Engineers, and also waters that are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the Pacific Coast). See 33 CFR 209.260 (ER 1165–2–302) for a more definitive explanation of this term.

(2) "Navigable waters". (i) The term, "navigable waters," as used herein for purposes of Section 404 of the Federal Water Pollution Control Act, is administratively defined to mean waters of the United States including the territorial seas with respect to the disposal of fill material and excluding the territorial sea with respect to the disposal of dredged material and shall include the following waters:

(a) Coastal waters that are navigable waters of the United States subject to the ebb and flow of the tide, shoreward to their mean high water mark (mean higher high water mark on the Pacific coast);

(b) All coastal wetlands, mudflats, swamps, and similar areas that are contiguous or adjacent to other navigable waters. "Coastal wetlands" includes marshes and shallows and means those areas periodically inundated by saline or brackish waters and that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction;

(c) Rivers, lakes, streams, and artificial water bodies that are navigable waters of the United States up to their headwaters and landward to their ordinary high water mark;

(d) All artificially created channels and canals used for recreational or other navigational purposes that are connected to other navigable waters, landward to their ordinary high water mark;

(e) All tributaries of navigable waters of the United States up to their headwaters and landward to their ordinary high water mark;

(f) Interstate waters landward to their ordinary high water mark and up to their headwaters;

(g) Intrastate lakes, rivers and streams landward to their ordinary high water mark and up to their headwaters that are utilized:

(1) By interstate travelers for water-related recreational purposes;

(2) For the removal of fish that are sold in interstate commerce;

(3) For industrial purposes by industries in interstate commerce; or

(4) In the production of agricultural commodities sold or transported in interstate commerce;

(h) Freshwater wetlands including marshes, shallows, swamps and, similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation. "Freshwater wetlands" means those areas that are periodically inundated and that are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction; and

(i) those other waters which the District Engineer determines necessitate regulation for the protection of water quality as expressed in the guidelines (40 CFR 230). For example, in the case of intermittent rivers, streams, tributaries, and perched wetlands that are not contiguous or adjacent to navigable waters identified in paragraphs (a)–(h) a decision on jurisdiction shall be made by the District Engineer.

(ii) The followng additional terms are defined as follows:

(a) "Ordinary high water mark" with respect to inland fresh water means the line on the shore established by analysis of all daily high waters. It is established as that point on the shore that is inundated 25% of the time and is derived by a flow-duration curve for the particular water body that is based on available water stage data. It may also be estimated by erosion or easily recognized characteristics such as shelving, change in the character of the soil, destruction of terrestrial vegetation or its inability to grow, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area;

(b) "Mean high water mark" with respect to ocean and coastal waters means the line on the shore established by the average of all high tides (all higher high tides on the Pacific Coast). It is established by survey based on available tidal data (preferably averaged over a period of 18.6 years because of the variations in tide). In the absence of such data, less precise methods to determine the mean high water mark may be used, such as physical markings or comparison of the area in question with an area having similar physical characteristics for which tidal data are already available;

(c) "Lakes" means natural bodies of water greater than five acres in surface area and all bodies of standing water created by the impounding of navigable waters identified in paragraphs (a)–(h), above. Stock watering ponds and settling basins that are not created by such impoundments are not included;

(d) "Headwaters" means the point on the stream above which the flow is normally less han 5 cubic feet per second; provided, however, the volume of flow, point and nonpoint source discharge characteristics of the watershed, and other factors that may impact on the water quality of waters of the United States will be considered in determining this upstream limit; and

(e) "Primary tributaries" means the main stems of tributaries directly connecting to navigable waters of the United States up to their headwaters and does not include any additional tributaries extending off of the main stems of these tributaries.

(3) "Ocean waters". The term "ocean waters," as defined in the Marine Protection, Research, and Sanctuaries Act of 1972 (Pub. L. 92-532), 86 Stat. 1052), means those waters of the open seas lying seaward of the base line from which the territorial sea is measured as provided for in the Convention on the Territorial Sea and the Contiguous Zone (15 UST 1606; TIAS 5639).

(4) "Dredged material". The term "dredged material" means material that is excavated or dredged from navigable waters. The term does not include material resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for production of food, fiber, and forest products.

(5) "Discharge of dredged material". The term "discharge of dredged material" means any addition of dredged material, in excess of one cubic yard when used in a single or incidental operation, into navigable waters. The term includes, without limitation, the addition of dredged material to a specified disposal site located in navigable waters and the runoff or overflow from a contained land or water disposal area. Discharges of pollutants into navigable waters resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill) are not included within this term and are subject to section 402 of the Federal Water Pollution Control Act even though the extraction of such material may require a permit from the Corps of Engineers under section 10 of the River and Harbor Act of 1899.

(6) "Fill material." The term "fill material" means any pollutant used to create fill in the traditional sense of replacing an aquatic area with dry land or of changing the bottom elevation of a water body for any purpose. "Fill material" does not include the following:

(i) Material resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for the production of food, fiber, and forest products;

(ii) Material placed for the purpose of maintenance, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures;

(iii) Additions to these categories of activities that are not "fill" will be considered periodically and these regulations amended accordingly.

(7) "Discharge of fill material." The term "discharge of fill material" means the addition of fill material into navigable waters for the purpose of creating fastlands, elevations of land beneath navigable waters, or for impoundments of water. The term generally includes, without limitation, the following activities in a navigable water: placement of fill that is necessary to the construction of any structure; the building of any structure or impoundment requiring rock, sand, dirt, or other pollutants for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands, property protection and/or reclamation devices such as riprap, groins, seawalls, breakwalls, and bulkheads and fills; beach nourishment; levees; sanitary landfills; fill for structures such as sewage treatment facilities, intake and outfall pipes associated with power plants, and subaqueous utility lines; and artificial reefs.

[FR Doc.75-23351 Filed 9-4-75;8:45 am]